



THE TREASURY

Kaitohutohu Kaupapa Rawa

Income and occupational intergenerational mobility in NZ

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Intergenerational mobility

- Definition
- Interest
- Obstacles and data
- Results
- International comparisons
- Conclusions

Defining intergenerational mobility

- Persistence between parents' and children's outcomes
 - Income
 - Socio-economic status (SES) of occupations
- Associations and correlations across generations – usually only age controls
- Also, changes in average outcomes between generations (not covered here).

About opportunity and (possibly) efficiency

Obstacles to people developing and using their abilities could:

- lower equality of opportunity
- result in an inefficient use of human capital and hinder the economy
- But, policies to promote education could lower mobility by benefitting better off most
- Benefits from parents investing in their children and individual freedom important

Methodological obstacles

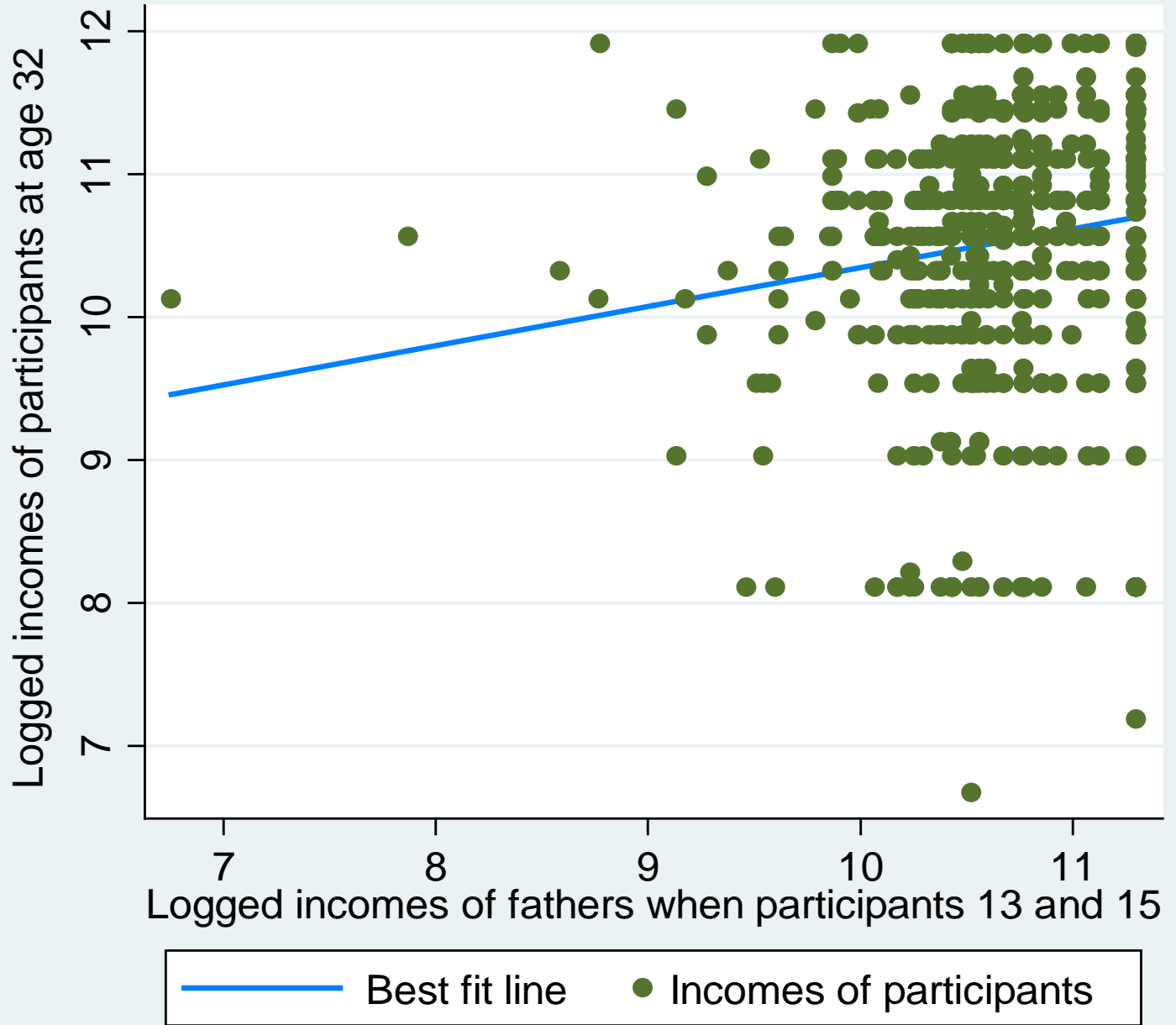
- Intergenerational income data on families is scarce – have to use proxies
- Snapshots of life-time income
- Big life-cycle income effects
- Causal effects parental income unclear - income not most important factor for subsequent outcomes

Dunedin and Election studies

- Dunedin Study data on 1,035 children born 1972/73
- Have parents' incomes when participants 13 and 15 and participants' incomes at 32
- Ideally should be measuring participants' incomes at an older age
- Also, Election Study data on people's occupation and the occupations of parents when respondent aged 14 (3,268 cases)

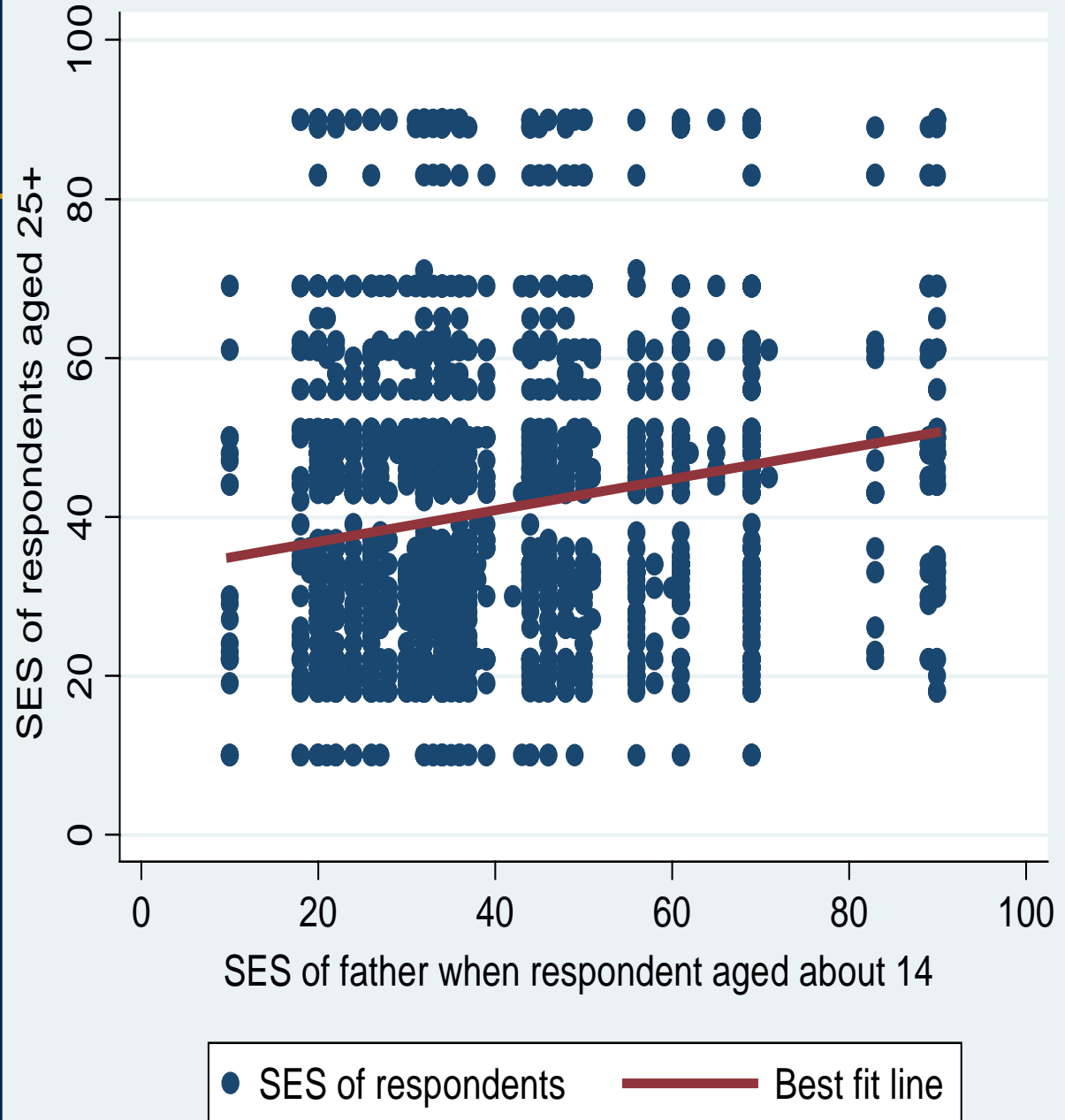
Dunedin results

The incomes of Dunedin fathers and of their children as adults



The SES of fathers and their children (1996 Election Study)

Election Study results



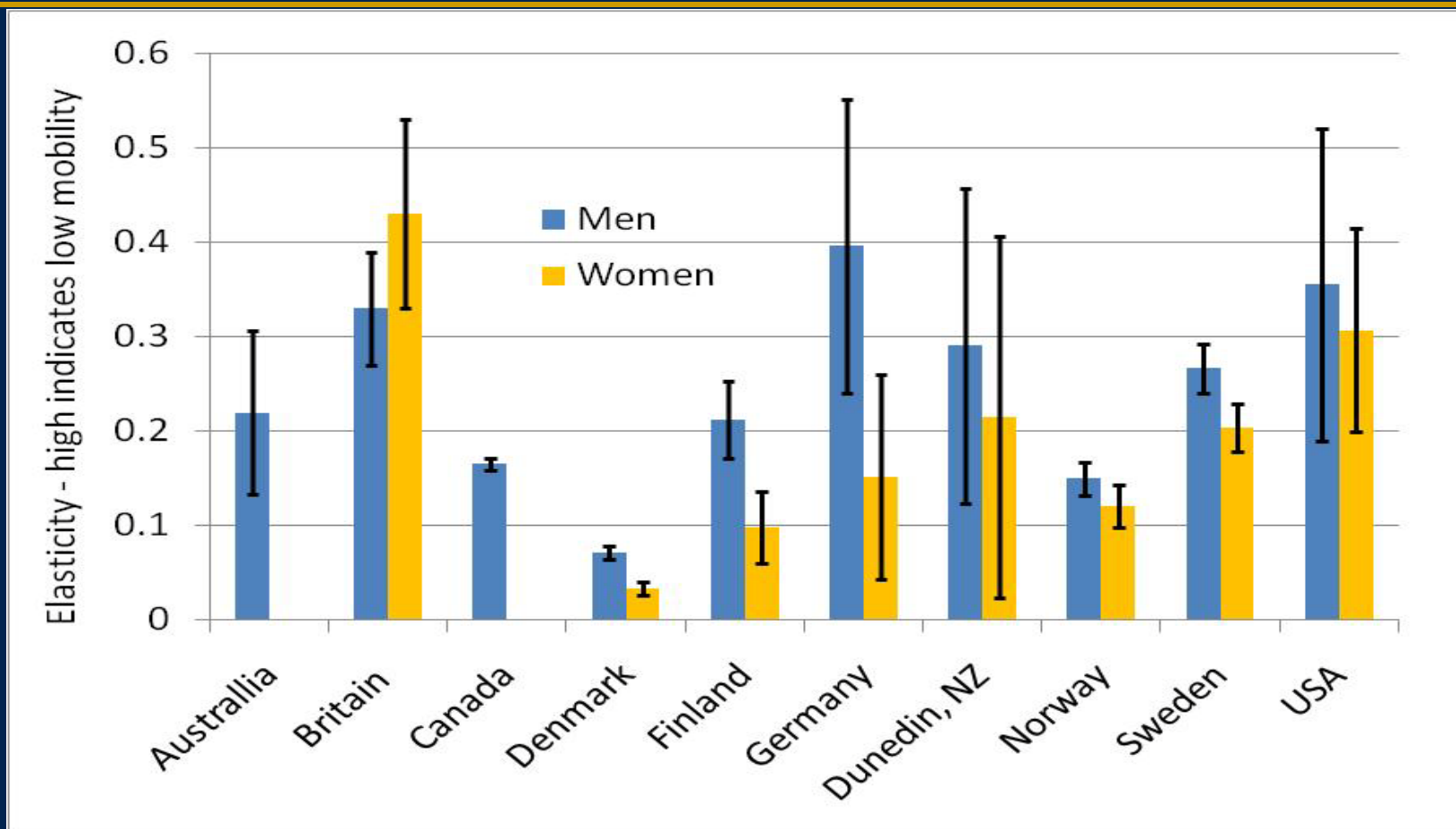
Summarising the results

- Only a small proportion of variance in adult income and SES explained.
- Many people from modest backgrounds reach a high income or SES and vice versa
- Results suggest parents' income or SES has a weak effect on people's adult outcomes compared to other variables
- For instance, a person's own educational qualifications and gender are strongly associated with their income at 32

Need for caution

- Differences may reflect different methods
- E.g. Dunedin income data includes a wider range of people than in Nordic countries
- Confidence intervals often wide, indicating uncertainty about the results
- Models used for comparisons include no controls except age

Intergenerational income elasticity results



95% confidence intervals are shown

Conclusion

- Results using data from two different studies have produced similar results
- In NZ, the income or SES of a person's parents when they are a teenager appears to have a relatively modest effect on their subsequent outcomes
- Intergenerational mobility in NZ appears to be in a similar range to other countries
- Wide confidence intervals for income mean further research desirable

Full mobility paper

- A detailed paper titled *Income and occupational intergenerational mobility in New Zealand* should be available today at:

<http://www.treasury.govt.nz/publications/research-policy/wp>

Comparing the results in extended models

Effect on incomes or SES	Dunedin Study	Election Study
Father's income or SES	+++	+++
Father's age	NS	NA
Father's age squared	NS	NA
Respondent's age	NA	++
Respondent's age squared	NA	+++
Own education	+++	NA
Gender	+++	+++
Region of world/region NZ	+++	+++
R-squared	25%	6.8%

NS=not significant; +=p<.10 and positive effect; ++=p<.05; +++=p<.01; NA= not available or appropriate to use. Only income or SES, age controls and gender are used in the internationally comparable models.

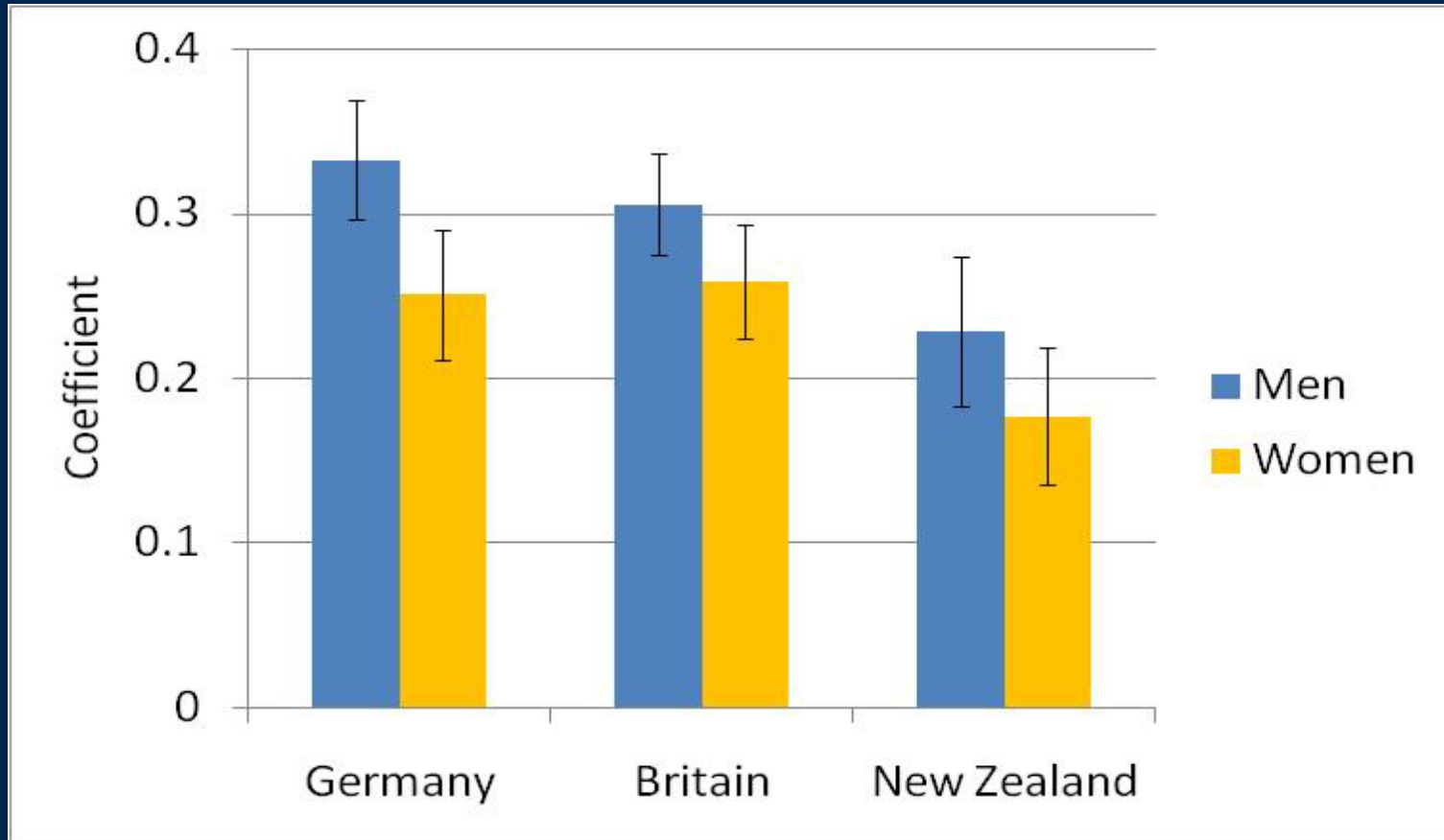
Election Study

- Election Study data on people's occupation and the occupation of parents when respondent aged 14
- Use occupation to code SES (NZ Socio-Economic Index, 1996). 10-90 scale
- SES was derived by other researchers from 1996 census data on average incomes and education levels of occupations, together with survey data on consumption by self-employed
- See Statistics NZ website for more details on NZSEI
- Occupation can be a good indicator of life-time earnings (and sometimes not)

Election Study example

- SES of lawyer is 83; labourer 20, on 10-90 scale
- Difference between having a father who is a lawyer rather than a labourer =12.6 units difference in adult SES
- Difference between being an insurance underwriter (SES of 48) and being a builder (SES of 36)
- Or of being a nurse (SES of 45) and of being a secretary (SES of 33)
- Considerable variation for individuals

Intergenerational occupational mobility results (using SES)



- 90% CIs are shown

Occupational mobility in different countries

- NZ men more mobile than German men and difference significant at a 5% level
- NZ men and women more mobile than people in Britain, but barely significant at a 10% level. The evidence of a difference is therefore weak.
- An unpublished overseas study also indicates NZ has comparatively high occupational mobility